

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of	:	GRAVES, S. et al.	Examiner	:	PAK, S. H.
Application No.	:	10/082,833	Group Art	:	2874
Filing Date	:	February 25, 2002	Docket No.	:	P00079US2A
Confirmation No.	:	4638			
Title	:	OPTICAL TRANSMISSION TUBE AND APPLICATIONS THEREOF			

Appeal Related Matters
Board of Patent Appeals and Interferences
United States Patent and Trademark Office
P.O. Box 1450
Alexandria, VA 22313-1450

AMENDED APPEAL BRIEF

Sir/Madam:

Pursuant to 37 C.F.R. § 41.37(d), Applicant submits this Amended Appeal Brief in connection with the above-referenced application. The original Appeal Brief, filed on August 9, 2005, was timely filed within two months of the filing date of the Notice of Appeal with a proper certificate of mailing. On August 18, 2008, the Board of Patent Appeals and Interferences issued an Order Remanding to Examiner ("the Order"), noting that the original Appeal Brief did not identify the status of all of the claims in accordance with 37 C.F.R. § 41.37(c)(1)(iii) and did not map the independent claims to the specification in accordance with 37 C.F.R. § 41.37(c)(1)(v). This Amended Appeal Brief corrects these two deficiencies. Since this Amended Appeal Brief is filed through the Electronic Filing System within one month of the Order, it is timely filed.

This is an appeal from the decision of the Examiner mailed February 7, 2005, finally rejecting claims 15-38, 40, 41, 43, and 44. The fees required under 37 C.F.R. § 1.17 were already paid at the time the original Appeal Brief was filed.

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I. REAL PARTY IN INTEREST

Bridgestone Americas Holding, Inc. is the real party in interest.

II. RELATED APPEALS AND INTERFERENCES

There are no related appeals or interferences.

III. STATUS OF CLAIMS

Claims 15-38, 40, 41, 43, and 44, have been finally rejected under 35 U.S.C. § 103. Claims 1-14, 39, and 42 have been cancelled. Claims 15-38, 40, 41, 43, and 44 remain pending and are on appeal (see Section IX, Claims Appendix).

IV. STATUS OF AMENDMENTS

No amendments were filed subsequent to the final Office Action, mailed February 7, 2005 (Exhibit A, hereafter “Final Office Action”).

V. SUMMARY OF CLAIMED SUBJECT MATTER

In a particular embodiment, the application relates to delineation marking systems that incorporate optical transmission tubes (1) configured to illuminate the area in the vicinity of the optical transmission tubes.

Claim 15 includes a delineation marking system comprising a delineation marker configured to outline a portion of a contour of a road (*see* Figures 13 and 14, p. 12, lines 13-14 and 28-29) and at least one optical transmission tube assembly (1) disposed on the delineation marker (*see* p. 12, lines 13-17 and 28-33). The optical transmission tube assembly (1) is configured to be visibly detected by a driver and includes an elongated body that is substantially transparent, a reflective layer (3) extending along a portion of the length of the elongated body, and a light source (2) at an end of the elongated body (*see* p. 7, lines 3-26).

Claim 27 includes a method of guiding a vehicle driver along a road. This method includes the step of installing a delineation marker on a road to outline a contour of the road (*see* Figures 13 and 14, p. 12, lines 13-14 and 28-29), the delineation marker having an optical

transmission tube (1) thereon (*see* p. 12, lines 13-17 and 28-33). The optical transmission tube assembly (1) includes an elongated body that is substantially transparent and a light emitting diode (2) at an end of the elongated body (*see* p. 7, lines 3-26). The method further includes illuminating the optical transmission tube (1) to guide the driver (*see* p. 12, lines 20-23).

Claim 34 includes a delineation marking system comprising a structure configured to outline a portion of a contour of a road (*see* Figures 13 and 14, p. 12, lines 13-14 and 28-29) and an optical transmission tube assembly (1) supported by the structure (*see* p. 12, lines 13-17 and 28-33). The optical transmission tube assembly (1) includes an elongated body that is substantially transparent, a reflective layer (3) extending along a portion of the length of the elongated body, and a light emitting diode (2) at an end of the elongated body (*see* p. 7, lines 3-26 and p. 8, lines 33-35). The optical transmission tube assembly (1) is configured to transmit light along a portion of the length of the elongated body when light is emitted from the light emitting diode (2) (*see* p. 7, lines 3-26 and p. 8, lines 33-35).

Claim 41 includes a delineation marking system comprising a plurality of barrier walls (*see* Figures 13 and 14, p. 12, lines 13-14 and 28-29) and one or more optical transmission tubes (1) provided on one or more of the barrier walls and configured to be illuminated to outline a travel path (*see* p. 12, lines 13-17 and 28-33). Each optical transmission tube (1) includes a substantially transparent tubular body, a reflecting layer (3) in strip form extending along a portion of the length of the tubular body, and a light emitting diode (2) provided at an end of the optical transmission tube (1) (*see* p. 7, lines 3-26 and p. 8, lines 33-35). The light emitting diode is configured to supply light such that light is reflected and scattered by the reflecting layer (3) and emerges from the optical transmission tube (1) (*see* p. 7, lines 3-26 and p. 8, lines 33-35).

VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

Claims 15-38, 40, 41, 43, and 44 have been rejected under 35 U.S.C. § 103(a) as being obvious in light of U.S. Patent No. 6,592,245 to Tribelsky et al. (Exhibit B, hereafter “Tribelsky ‘245”) in view of U.S. Patent No. 5,982,969 to Sugiyama et al. (Exhibit C, hereafter “Sugiyama ‘969”). The Office acknowledges that Tribelsky ‘245 does not teach or suggest a reflective layer

in strip form extending along the transmission tube or an LED. The Office relies on Sugiyama '969 to supply the missing limitations.

VII. ARGUMENT

Claims 15-38, 40, 41, 43, and 44 are not obvious in light of Tribelsky '245 in view of Sugiyama '969 under 35 U.S.C. § 103.

A. Brief Discussion of References

Tribelsky '245 describes a fiber optic system and method for illuminating an elongated indication path (abstract). To illuminate the elongated indication path, Tribelsky '245 employs a side emitting optical fiber (col. 1, lines 12-20) and a high intensity light source (col. 5, lines 40-43). The side emitting optical fibers of Tribelsky '245 transmit light from one end to the other via total internal reflection (col. 4, lines 64-67), while simultaneously allowing some portion of the transmitted light to escape along the length of the fiber (col. 5, lines 59-67). The side emitting optical fibers are provided within a flexible, semi-opaque sleeve that is holographically grooved to allow light of a predetermined wavelength to escape at a predetermined angle and to provide uniform visible transmission of light along the path (col. 3, lines 15-21).

In one embodiment, Tribelsky '245 teaches that side emitting optical fibers may be embedded in a road surface or employed along a road side barrier to illuminate a driver's path (col. 7, lines 56-61). This embodiment, exemplified in Figure 6, is the only embodiment relevant to the present application.

Tribelsky '245 concedes that the use of side emitting optical fibers for illumination was well-known in the art, but states that earlier devices were limited to short distance illuminations (col. 2, lines 8-14). Tribelsky '245 cites U.S. Patent No. 4,422,719 (issued December 27, 1983) as an early example of a short distance illumination device. Tribelsky '245 distinguished itself from the prior art by specifically designing a device to illuminate long paths (col. 3, lines 37-38). For example, Tribelsky '245 teaches that a single device can be used to illuminate a road barrier of more than two kilometers in length (col. 7, lines 61-64).

Sugiyama '969 describes an optical transmission tube having a transparent core for illuminating a short path (col. 4, lines 25-30). The optical transmission tube further includes a

reflective strip along a portion of the length of the tube (col. 4, lines 30-31). The end of the tube is coupled to an LED, which supplies light to the optical transmission tube (col. 7, lines 36-44). Sugiyama '969 fails to teach an optical transmission tube assembly disposed on a delineation marker configured to outline at least a portion of the contour of a road.

B. Law and Argument

In order to establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. MPEP § 2143.

Further, the proposed modification cannot render the prior art unsatisfactory for its intended purpose. MPEP § 2143.01. If the proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification. *In re Gordon*, 733 F.2d 900 (Fed. Cir. 1984).

Moreover, the fact that references can be combined or modified is not sufficient to establish *prima facie* obviousness. MPEP § 2143.01. The mere fact that references *can* be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. *In re Mills*, 916 F.2d 680 (Fed. Cir. 1990).

In the Final Office Action, the Office expressly concedes that Tribelsky '245 does "not explicitly teach the use of a reflective layer in a strip form extending along the transmission tube... and a light source being a light emitting diode" (Exhibit A, Final Office Action, pages 2-3). The Office relies on Sugiyama '969 to supply these missing limitations. However, as discussed in more detail below, Appellant submits that Tribelsky '245 teaches away from such limitations, thus there is no motivation to combine the limitations of Sugiyama '969 with the light guide of Tribelsky '245. In fact, the LED of Sugiyama '969 would render the light guide of Tribelsky '245 unfit for its intended purpose.

Additionally, in the Final Office Action, the Office states that Tribelsky '245 inherently teaches that the optical fiber is an elongated body that is substantially transparent. As discussed in more detail below, Appellant submits that Tribelsky '245 contains no such teaching and, in fact, teaches away from a substantially transparent optical fiber.

1. Tribelsky '245 teaches away from the use of an LED as a light source

In the present application, claim 27 calls for an LED provided at an end portion of an elongated body of an optical transmission tube assembly. Claims 28-33 depend from claim 27 and incorporate this limitation.

Claim 34 also calls for an LED provided at an end portion of an elongated body of an optical transmission tube assembly. Claims 35-38, 40, and 44 depend from claim 34 and incorporate this limitation.

Claim 41 calls for an LED provided at an end portion of the optical transmission tube.

The Office rejected claims 27-38, 40, 41, 43, and 44 under 35 U.S.C. § 103 as unpatentable over Tribelsky '245 in view of Sugiyama '969. The Office concedes that Tribelsky '245 does not disclose, teach, or otherwise suggest the use of an LED. The Office relies on Sugiyama '969 to supply this missing limitation. However, Tribelsky '245 teaches away from the use of an LED and, thus, there is no motivation to combine the two references.

Tribelsky '245 discloses a long light guide that requires a high intensity light source (col. 5, lines 40-43). Examples of light sources disclosed include Halogen lamps, Metal Halide lamps, Micro-wave excitation lamps, Micro-wave excitation fiber lamps, Lasers, and flash type lamps, all of which are high intensity light sources (col. 13, lines 2-10).

While Tribelsky '245 does teach a light guide disposed along a road, the disclosure is directed to long light guides (col. 3, lines 37-38). For example, Tribelsky '245 teaches that a single light source and optical fiber assembly can be used to illuminate a barrier of more than two kilometers in length (col. 7, lines 61-64). Tribelsky '245 expressly teaches away from the use of light guides having a short length. In the Background of the Invention, Tribelsky '245 states:

the optical marking of an elongated indication path is prohibitively expensive and cumbersome because a large number of light sources are required, these well known methods include serial connection of a plurality of light sources (e.g. each

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light source is aligned to single light guide, fiber, or light conduits or lens or signs and signals) without the ability to efficiently combine their collective outputs for long distance high intensity optical marking or illumination. Thus use of elongated illumination paths have found only limited uses in critical applications (such as highlighting air transport runways, oceanographic optical marking or illumination systems or ITS type systems (e.g. Intelligent Transport Systems—optical traffic warning signals) lighting systems and/or efficient light distribution fiber networks for optical marking or illumination) (col. 1, lines 41-55).

In sum, the short light guides of the prior art were ill-suited for marking paths along roads because they were expensive, cumbersome, and difficult to maintain. Tribelsky '245 overcame the problems inherent to short light guides by using an elongated light guide (up to two kilometers in length) and a high intensity light source. To employ a single light guide along two kilometers of a highway, a high intensity light source is required to maintain uniform illumination. Indeed, Tribelsky '245 discloses the use of a 1000 Watt lamp as a light source (col. 15, lines 18-23) in connection with the Figure 6 embodiment. Therefore, Tribelsky '245 teaches away from a low-intensity light source, such as an LED, and thus there is no motivation to so modify the reference.

Moreover, the LED of Sugiyama '969 would render the light guide of Tribelsky '245 unsuitable for its intended purpose. A proposed modification cannot render the prior art unsatisfactory for its intended purpose. MPEP § 2143.01. If the proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification. *In re Gordon*, 733 F.2d 900 (Fed. Cir. 1984).

The LED of Sugiyama '969 is a low-intensity light source that is unsuitable for illuminating the elongated path of Tribelsky '245. At the time of invention, LEDs fell within the range of 0.04 Watts to 5 Watts (*see* Exhibit D, Light Emitting Diodes, www.wikipedia.com, p. 7). If the LED of Sugiyama '969 were combined with the optical fiber light guide of Tribelsky '245, it would result in an elongated light guide that provides very poor illumination. Accordingly, the Office's proposed modification would render Tribelsky '245 unsatisfactory for its intended purpose. *See* MPEP § 2443.01. Therefore, there is no suggestion or motivation to make the proposed modification. *In re Gordon*, 733 F.2d 900 (Fed. Cir. 1984).

For these reasons, Appellant respectfully submits that the rejection of claims 27-38, 40, 41, 43, and 44 under 35 U.S.C. § 103 is improper and the claims are not rendered obvious by Tribelsky '245 in view of Sugiyama '969.

2. Tribelsky '245 teaches away from the use of a reflective strip

In the present application, claim 15 calls for a reflective layer extending along at least a portion of the length of the elongated body of the optical transmission tube assembly. Claims 16-26 and 43 depend from claim 15 and incorporate this limitation.

Claim 34 also calls for a reflective layer extending along at least a portion of the length of the elongated body of the optical transmission tube assembly. Claims 35-38, 40, and 44 depend from claim 34 and incorporate this limitation.

Claim 41 calls for a reflecting layer in strip form extending along at least a portion of the length of the tubular body.

The present application employs a reflective layer to reflect light through the optical transmission tube such that it emerges from the opposite side of the reflective layer (p. 7, lines 16-26). The Office rejected claims 5-26, 34-38, 40, 41, 43 and 44 under 35 U.S.C. § 103 over Tribelsky '245 in view of Sugiyama '969. The Office concedes that Tribelsky '245 does not disclose, teach, or otherwise suggest the use of a reflective strip. The Office relies on Sugiyama '969 to supply this missing limitation. However, the reflective strip of Sugiyama '969 would serve no function if applied to the light guide of Tribelsky '245. Thus, there is no motivation to combine the two references.

Tribelsky '245 employs a light guide including side emitting optical fibers that transmit light via total internal reflection (col. 4, lines 64-67). Such side emitting optical fibers transmit light from one end to another, while allowing some portion of transmitted light to escape along the length of the fiber (col. 5, lines 59-67). Conversely, any light that is input along the sides of the fibers (such as light reflected off a reflective strip) would not pass through the opposite side of the fiber, but would instead be transmitted via total internal reflection along the length of the fiber (*see* Exhibit E, "A Fluorescent Long-Line Fiber-Optic Position Sensor," www.sensormag.com, p. 3). Tribelsky '245 acknowledges the limitations of side emitting fibers with respect to directional control of light in that Tribelsky '245 only employs reflectors that

reflect light *away* from the optical fibers and towards another desired location (see col. 18, lines 27-30; col. 18, lines 44-51; and col. 19, lines 58-67).

Sugiyama '969 employs a reflective layer to reflect light through an optical transmission tube, such that it emerges from an area opposite the reflective layer (col. 4, lines 39-44). If the reflective layer of Sugiyama '969 were combined with the light guide of Tribelsky '245, light reflected from the reflective layer would be transmitted along the length of the fiber rather than towards the desired location. Thus, the reflective layer would not perform the function of illuminating a desired area.

The fact that references *can* be combined or modified is not sufficient to establish *prima facie* obviousness. MPEP § 2143.01. Instead, the prior art must suggest the desirability of the combination. *Id.* Employing the reflective layer of Sugiyama '969 along the optical fibers of Tribelsky '245 would serve no function. Thus, Sugiyama '969 provides no motivation to so modify Tribelsky '245, and the teachings of Sugiyama '969 and Tribelsky '245 are insufficient to establish *prima facie* obviousness. See *In re Mills*, 916 F.2d 680.

Furthermore, Tribelsky '245 employs a bundle of optical fibers enclosed within a semi-opaque sleeve (col. 8, lines 14-34). The Office has interpreted each optical fiber as "an elongated body that is substantially transparent" (Exhibit A, p. 3). If the reflective layer of Sugiyama '969 were provided on each side emitting optical fiber of Tribelsky '245, it would result in a plurality of reflective layers disposed throughout a bundle of optical fibers. The plurality of reflective layers would scatter light in different directions, rather than in a single direction. Accordingly, the Office's proposed modification would render Tribelsky '245 unsatisfactory for its intended purpose. See MPEP § 2143.01. Therefore, there is no suggestion or motivation to make the proposed modification. See *In re Gordon*, 733 F.2d 900 (Fed. Cir. 1984)

For these reasons, Appellant respectfully submits that the rejection of claims 15-26, 34-38, 40, 41, 43 and 44 under 35 U.S.C. § 103 is improper and the claims are not rendered obvious by Tribelsky '245 in view of Sugiyama '969.

3. **Tribelsky '245 teaches away from a substantially transparent transmission tube**

In the present application, claims 15, 27, 34, and 41 all call for an optical transmission tube assembly that includes an elongated body that is substantially transparent. Claims 16-26 and 43 depend from claim 15 and incorporate this limitation. Claims 28-33 depend from claim 27 and incorporate the above limitation. Claims 35-38, 40, and 44 depend from claim 34 and incorporate the above limitation.

Tribelsky '245 does not teach an optical transmission tube assembly having an elongated body that is substantially transparent. The Office concedes that Tribelsky '245 does not explicitly teach a substantially transparent body, but rather states that the side emitting optical fibers of Tribelsky '245 are inherently transparent. Appellant respectfully disagrees. In fact, the side emitting optical fibers of Tribelsky '245 are *not* substantially transparent. As explained above, light that impinges on the side of the fibers does not pass directly through the fibers. Instead, it is either reflected off the fiber or transmitted via total internal reflection along the length of the fiber towards either end (*see* Exhibit E, "A Fluorescent Long-Line Fiber-Optic Position Sensor," www.sensormag.com, p. 3).

For this reason, Appellant respectfully submits that the rejection of claims 15-38, 40, 41, 43 and 44 under 35 U.S.C. § 103 is improper and the claims are not rendered obvious by Tribelsky '245 in view of Sugiyama '969.

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CONCLUSION

Appellant submits that the pending claims are allowable and urges allowance of the claims at an early date.

The Commissioner is hereby authorized to charge any additional fees, or credit any overpayment to Deposit Account No. 02-2051, referencing Attorney Docket No. P00079US2A.

Respectfully submitted,

Dated: September 4, 2008

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VIII. CLAIMS APPENDIX

IN THE CLAIMS:

Claims 1-14 (cancelled)

15. (previously presented) A delineation marking arrangement for use along a road, the delineation marking arrangement comprising:
 - a delineation marker configured to outline at least a portion of the contour of the road; and
 - at least one optical transmission tube assembly disposed on the delineation marker, the optical transmission tube assembly being configured to be visibly detected by a vehicle driver to convey road-related information to the vehicle driver.wherein the optical transmission tube assembly includes:
 - an elongated body that is substantially transparent,
 - a reflective layer extending along at least a portion of the length of the elongated body, and
 - a light source provided at an end portion of the elongated body.
16. (previously presented) The delineation marking arrangement of claim 15, wherein the delineation marker includes a guard rail that extends along at least a portion of the road.
17. (previously presented) The delineation marking arrangement of claim 16, wherein the guard rail extends along a curved portion of the road.
18. (previously presented) The delineation marking arrangement of claim 15, wherein the delineation marker includes at least one barrier wall that extends along at least a portion of the road.

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19. (previously presented) The delineation marking arrangement of claim 15, wherein the delineation marker includes a plurality of barrier walls that extend along at least a portion of the road.
20. (previously presented) The delineation marking arrangement of claim 15, wherein the optical transmission tube assembly is configured to transmit light along at least a portion of the length of the elongated body when light is emitted from the light source.
21. (previously presented) The delineation marking arrangement of claim 20, wherein the light source includes a light emitting diode.
22. (previously presented) The delineation marking arrangement of claim 15, wherein the optical transmission tube assembly is connected to a top edge of the delineation marker.
23. (previously presented) The delineation marking arrangement of claim 15, wherein the road-related information conveyed to the vehicle driver includes the existence of an impending curve, jog, or other change in road direction.
24. (previously presented) The delineation marking arrangement of claim 15, wherein the road-related information conveyed to the vehicle driver includes the existence of an end of the road or an edge of the road.
25. (previously presented) The delineation marking arrangement of claim 15, wherein the road-related information conveyed to the vehicle driver includes the existence of a road hazard or other road obstacle to thereby guide the vehicle driver around such road hazard or other road obstacle.
26. (previously presented) The delineation marking arrangement of claim 15, wherein the optical transmission tube assembly is illuminated to be visibly detected.

27. (previously presented) A method of guiding a vehicle driver along a road having a contour, the method comprising the steps of:

installing a delineation marker along at least a portion of the road to outline the contour of the road, the delineation marker having an optical transmission tube provided thereon;

wherein the optical transmission tube assembly includes:

an elongated body that is substantially transparent, and

a light emitting diode provided at an end portion of the elongated body; and

illuminating the optical transmission tube to guide the vehicle driver along the road.

28. (previously presented) The method of claim 27, wherein the delineation marker installation step includes the step of installing the optical transmission tube onto a top lip of the delineation marker.
29. (previously presented) The method of claim 27, wherein the delineation marker installation step includes the step of installing the optical transmission tube above the delineation marker.
30. (previously presented) The method of claim 27, wherein the delineation marker includes a plurality of optical transmission tubes provided thereon.
31. (previously presented) The method of claim 27, wherein the delineation marker includes a guard rail.
32. (previously presented) The method of claim 27, wherein the delineation marker includes a plurality of barrier walls.

33. (previously presented) The method of claim 27, wherein the optical transmission tube illumination step enhances vehicle driver preview distance.
34. (previously presented) A delineation marking system for use along a travel path having a contour, the delineation marking system comprising:
- a structure configured to outline at least a portion of the contour of the road;
 - an optical transmission tube assembly supported by the structure, the optical transmission tube assembly being configured to be used as an illuminated indicator wherein the optical transmission tube assembly includes:
 - an elongated body that is substantially transparent;
 - a reflective layer extending along at least a portion of the length of the elongated body; and
 - a light emitting diode provided at an end portion of the elongated body, wherein the optical transmission tube assembly is configured to transmit light along at least a portion of the length of the elongated body when light is emitted from the light emitting diode.
35. (previously presented) The delineation marking system of claim 34, wherein the structure includes a guard rail that extends along at least a portion of the travel path.
36. (previously presented) The delineation marking system of claim 34, wherein the structure includes a plurality of barrier walls that extend along at least a portion of the travel path.
37. (previously presented) The delineation marking system of claim 34, wherein the illuminated indicator indicates the existence of an impending curve, jog or other change in road direction.

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38. (previously presented) The delineation marking system of claim 34, wherein the illuminated indicator indicates the existence of a road hazard or other road obstacle.
39. (cancelled)
40. (previously presented) The delineation marking system of claim 34, wherein light is emitted radially outward from the optical transmission tube.
41. (previously presented) A delineation marker system for use along a travel path, the delineation marker system comprising:
a plurality of barrier walls; and
one or more optical transmission tubes provided on one or more of the barrier walls, the optical transmission tubes configured to be illuminated to outline the travel path, wherein each optical transmission tube includes:
a substantially transparent tubular body; and
a reflecting layer in strip form extending along at least a portion of the length of the tubular body; and
a light emitting diode provided at an end portion of the optical transmission tube, the light emitting diode configured to supply light to the optical transmission tube such that light is reflected and scattered by the reflecting layer to cause such light to emerge from the optical transmission tube.
42. (cancelled)
43. (previously presented) The delineation marking arrangement of claim 15, wherein the elongated body is constructed of acrylic.
44. (previously presented) The delineation marking system of claim 34, wherein the elongated body is constructed of acrylic.

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IX. EVIDENCE APPENDIX

Appellant has not submitted evidence pursuant to 37 C.F.R. §§ 1.130, 1.131, or 1.132.
Examiner has not submitted any evidence relied upon by appellant in the appeal.

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X. RELATED PROCEEDINGS APPENDIX

There are no related appeals or interferences.